## State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-140-23
Relating to Exemptions under Section 27156
of the Vehicle Code

SPEARCO PERFORMANCE PRODUCTS, INC.
RAPIDO GROUP AIR-TO-AIR INTERCOOLER KIT NO. 07-0102

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5:

IT IS ORDERED AND RESOLVED: That the installation of the Rapido Group air-to-air intercooler kit number 07-0102 manufactured by Spearco Performance Products, Inc. has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1985-1988 2.3 liter Ford Merkur vehicles with OEM turbochargers.

This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF SPEARCO PERFORMANCE PRODUCTS, INC. RAPIDO GROUP AIR-TO-AIR INTERCOOLER KIT NO. 07-0102.

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No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

"43644. (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle poliution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle poliution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executive Order D-140-20, dated May 27, 1987, is superseded and of no further force and effect.

Executed at El Monte, California, this

K. D. Drachand, Chief Mobile Source Division

day of March

State of California
AIR RESOURCES BOARD

Evaluation of Spearco Performance Products, Inc.'s Rapido Group Air-To-Air Intercooler Kit No. 07-0102 for Exemption from the Prohibitions in Vehicle Code Section 27156 in Accordance with Section 2222, Title 13, of the California Administrative Code.

Evaluation of Spearco Performance Products, Inc.'s Rapido Group Air-To-Air Intercooler Kit No. 07-0102 for Exemption from the Prohibitions in Vehicle Code Section 27156 in Accordance with Section 2222, Title 13, of the California Administrative Code.

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Mobile Source Division

State of California Air Resources Board 9528 Telstar Avenue El Monte, CA 91731

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

## SUMMARY

Spearco Performance Products, Inc. (Spearco) has requested an update to the existing Air Resources Board Executive Order D-140-20. Request is to include the Rapido Group air-to-air intercooler kit number 07-0102 designed for 1988 model-year Ford Merkur 2.3 liter vehicles with an OEM turbocharger in the exemption.

Executive Order D-140-20 was granted to Spearco on May 27, 1987, on the basis that their air-to-air intercooler kit did not have an adverse effect on the vehicles' exhaust emissions. Since the 1988 model-year 2.3 liter Ford Merkur vehicles are carry-overs from 1987 models, the staff concludes that Spearco's Rapido Group air-to-air intercooler kit number 07-0102 will not adversely affect exhaust emissions from the requested vehicles.

The staff recommends that Spearco be granted their request and that Executive Order D-140-22 be issued.

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Evaluation of Spearco Performance Products, Inc.'s Rapido Group Air-To-Air Intercooler Kit No. 07-0102 for Exemption from the Prohibitions in Vehicle Code Section 27156 in Accordance with Section 2222, Title 13, of the California Administrative Code.

## 1. INTRODUCTION

Spearco Performance Products, Inc. (Spearco), of 7541 Woodman Place, Van Nuys, California 91405, has requested an update to the existing Air Resources Board (ARB) Executive Order (E.O.) D-140-20. Under E.O. D-140-20, Spearco's Rapido Group air-to-air intercooler kit number 07-0102 is exempted from the prohibitions of Vehicle Code Section 27156 for use on 1985-1987 2.3 liter Ford Merkur vehicles with OEM turbochargers.

Request is to include the 1988 model-year Ford Merkur 2.3 liter vehicles with an OEM turbocharger in the exemption.

#### II. CONCLUSION

E.O. D-140-20 was granted to Spearco on the basis that the Rapido Group air-to-air intercooler kit did not have an adverse effect on the exhaust emissions when the kit is installed on the 1985-1987 2.3 liter Ford Merkur vehicles with OEM turbocharger. Since the 1988 model-year 2.3 liter Ford Merkur vehicles are carry-overs from 1987 models, the staff concludes that Spearco's Rapido Group air-to-air intercooler kit number 07-0102 will not adversely affect exhaust emissions from the requested vehicles.

## III. RECOMMENDATIONS

The staff recommends that Spearco be granted an exemption updated as requested and that Executive Order D-140-23 be issued.

## IV. INTERCOOLER KIT DESCRIPTION AND OPERATION

The purpose of the intercooler is to reduce the temperature of the intake air/fuel charge going into the turbocharged engine. This reduction in the intake charge temperature allows a higher charge density (more amount of air per minute flowing through the engine) which means more fuel into the engine at a given intake manifold vacuum/pressure.

The major components of the Spearco Rapido Group air-to-air intercooler kit number 07-0102 are a heat exchanger and inter-connecting mandrel bent tubes. They are packaged with installation hardware and instructions and sold as a kit. The kit is designed using different design concepts, including tubing lengths, diameter and bends, to suit the requirements of the individual vehicle.

The air-to-air heat exchanger is located in such a way that the heated charge air flow goes through one section and ambient air flows through the other section, cooling the heated, compressed charge air. The cooled compressed air is then passed out of the heat exchanger to the intake manifold. The location for the installation of the heat exchanger varies with each vehicle model.

#### V. DISCUSSION

Spearco's Rapido Group air-to-air intercooler kit number 07-0102 is exempted from the prohibitions of California Vehicle Code Section 27156 by the E.O. D-140-20 on the basis that the use of the intercooler would not adversely affect the vehicle's emissions or degrade the vehicle's driveability. The applicant requested an update to the exemption to include the 1988 model-year 2.3 liter Ford Merkur vehicles with OEM turbochargers.

Since the 1988 model-year 2.3 liter Ford Merkur vehicles are carry-overs from 1987 models, the staff is of the opinion that the Rapido Group air-to-air intercooler kit number 07-0102 will not have an adverse effect on the exhaust emissions from vehicles requested for update.